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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/691,544 | 10/24/2003 | Carl M. Burnett | 19224.02 | 6894 |
| 37833 | 7590 | 11/29/2005 | EXAMINER | |
| LITMAN LAW OFFICES, LTD PO BOX 15035 CRYSTAL CITY STATION ARLINGTON, VA 22215 | | | CHOULES, JACK M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2167 | |

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/691,544 | Applicant(s) BURNETT, CARL M. | |
| | Examiner Jack M. Choules | Art Unit 2167 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-22 are presented for examination. This action is responsive to the amendment and arguments filed 13 September 2005.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-3, 12-20 and 22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As set forth in MPEP 2106 (IV) (B) (1):

"Data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." Claims to computer-related inventions that are clearly nonstatutory fall into the same general categories as nonstatutory claims in other arts, namely natural phenomena such as magnetism, and abstract ideas or laws of nature which constitute "descriptive material." Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data. Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se. *Warmerdam*, 33 F3d at 1360, 31 USPQ2d.

In particular, the claimed subject matter of claims 1-3, 12-20 and 22, especially claims 1 and 12 are to data which provides no function in the claims, the limitations are directed to nonfunctional descriptive material per se: a discrete geospatial coordinate, converted from global positioning system coordinates in Latitude and Longitude format

or decimal equivalent format and additional spatial information further the concatenated numeric geospatial measurement is also nonfunctional descriptive material. Therefore, claims 1-3 and 20, are rejected because the claim is directed to a medium only containing nonfunctional descriptive material the elements to encode the geospatial data on a video frame do not change the non statutory status under 101 because it is merely converting the embodiment of the data. Claims 12-19 and 22 are directed to a method that merely converts provided non-functional descriptive material as such is also non-statutory, as the method does not produce a “useful, concrete and tangible result.” *State Street*, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. For example, the court in *State Street* noted that the claimed invention in *Alappat* “constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it produced ‘a useful, concrete and tangible result’.” The Federal Circuit further ruled that it is of little relevance whether a claim is directed to a machine or process for the purpose of a § 101 analysis. *AT&T*, 172 F.3d at 1358, 50 USPQ2d at 1451 (see the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Annex II).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 8-11 and 21 are rejected under 35 U.S.C. 112, first paragraph, because of undue breadth, see MPEP 2164.08(a): Single Means Claim

A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor.

All elements of the claim are contained in the "Acquisition means" as the claim is currently written. This may be remedied by changing "Acquisition means" to, for example, an acquisition system.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 recites the limitation "the second location" and "the first location" in line 1 and "the geospatial receiver" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitation "the converted global positioning system coordinates" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 12 are rejected under 35 U.S.C. 102(B) as being anticipated by "The NMEA FAQ" version 6.1 (hereinafter NMEA).

As per claim 1 and 12, NMEA discloses, "A medium with a discrete geospatial coordinate embodied thereon, said geospatial coordinate comprising a single concatenated numeric geospatial measurement from latitude and longitude coordinates or decimal equivalent coordinates and additional spatial information." (page 3, section 3.2).

Claims 1 and 12 are rejected under 35 U.S.C. 102(B) as being anticipated by Abraham et al. (hereinafter Abraham) US Patent No. 5,731,786.

As per claim 1 and 12, Abraham discloses, "A medium with a discrete geospatial coordinate embodied thereon, said geospatial coordinate comprising a single concatenated numeric geospatial measurement from latitude and longitude coordinates or decimal equivalent coordinates and additional spatial information." (column 15, lines 50-63).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4, 6-8, 10, 11 and 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over NMEA as applied to claims 1 and 12 in further view of Lachinski et al. (hereinafter Lachinski) US Patent No. 5,633,946.

As per claim 2, 3 and 14, NMEA does not teach "video frame." Lachinski teaches converting latitude and longitude coordinates or decimal equivalent coordinates into the geospatial coordinate for encoding onto a video frame at a time of media acquisition (Lachinski, Fig. 2, element 24, GPS receiver, element 16, data acquisition control computer, element 20, video tape recorder, col. 2, lines 24-38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the NMEA by combining with the video tape recorder of Lachinski. The motivation being to provide the system of NMEA with a recording capability and record the geospatial data into a video so that the data can be later reviewed as many times as is necessary to validate the accuracy.

As per claim 4, 8, and 15-17 in addition to the elements set forth above Lachinski further details a capturing means having a geospatial receiver interconnected with a focus element at a first location, said capturing means being configured for capturing

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information of an entity at a second location, and geospatially referencing the second location to the first location in accordance with a focus ratio of the focus element and geospatial data associated with the geospatial receiver (Lachinski, col. 4, line 64 - col. 5, line 9).

As per claims 6, 10 and 18, NMEA and Lachinski teach all the claimed subject matters as discussed in claim 4, and further teach production means for producing integrated geospatial datasets (Lachinski, col. 2, lines 10-14).

As per claim 7, 11 and 19, NMEA and Lachinski teach all the claimed subject matters as discussed in claim 4, and further teach distribution means for distributing geospatial datasets (Lachinski, col. 2, lines 10-14).

Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over NMEA and Lachinski as applied to claims 1-4 and 8 above, and further in view of O'Neill, Jr. et al. (hereinafter O'Neill) US Patent No. 6,141,570.

As per claim 5 and 9, NMEA and Lachinski do not explicitly disclose a scheduling means for scheduling requests for acquisition of geospatial data, said geospatial data including visual, audio, textual, and geospatial information. O'Neill shows a scheduling means for scheduling requests for acquisition of geospatial data, said geospatial data including visual, audio, textual, and geospatial information (col. 2, lines 25-32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the NMEA and Lachinski's combined system by incorporating the concepts of

O'Neill, because the scheduling means would provide for an automatic acquisition based on a time-driven schedule.

Claim 13, 18 and 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over NMEA as applied to claim 12, and further in view of O'Neill, Jr. et al. (hereinafter O'Neill) US Patent No. 6,141,570.

As per claim 13, 18 and 19, NMEA does not explicitly disclose a scheduling means for scheduling requests for acquisition of geospatial data, said geospatial data including visual, audio, textual, and geospatial information. O'Neill shows a scheduling means for scheduling requests for acquisition of geospatial data, said geospatial data including visual, audio, textual, and geospatial information (col. 2, lines 25-32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the NMEA system by incorporating the concepts of O'Neill, because the scheduling means would provide for an automatic acquisition based on a time-driven schedule.

Claims 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over NMEA as applied to claim 1 and 12 above, and in further view of Faustini US Patent No. 6,496,870 B1).

As per claims 20 and 22, NMEA does not explicitly disclose, "said single concatenated numeric geospatial data format is stored in an encapsulated object class." Faustini details that said single concatenated numeric geospatial data format is stored

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in an encapsulated object class (Faustini, col. 3, line 65 - col. 4, line 17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the data format of NMEA by storing the data format in an encapsulated object class as disclosed by Faustini, because using object-oriented programming with an encapsulated object class would facilitate the manipulation and control of the data while allowing some code reusability.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over NMEA and Lachinski as applied to claim 8 above, and in further view of Faustini US Patent No. 6,496,870 B1).

As per claim 21, NMEA and Lachinski do not explicitly disclose, "said single concatenated numeric geospatial data format is stored in an encapsulated object class." Faustini details that said single concatenated numeric geospatial data format is stored in an encapsulated object class (Faustini, col. 3, line 65 - col. 4, line 17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the data format of NMEA by storing the data format in an encapsulated object class as disclosed by Faustini, because using object-oriented programming with an encapsulated object class would facilitate the manipulation and control of the data while allowing some code reusability.

Claims 2, 3, 6, 7, 10, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abraham as applied to claims 1 and 12 in further view of Best, US Patent No. 5,633,946.

As per claim 2, 3, 6, 7, 10, 11 and 14, Abraham does not teach “converting data for encoding onto a video frame.” Best teaches converting data for encoding onto a video frame at a time of media acquisition (Best, Fig. 2, element 24 and column 5 lines 5-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Abraham by combining with the video tape recorder of Best. The motivation being to provide the system of Abraham with the capability to receive the geospatial coordinate data with a televised transition or record the geospatial data into a video in a way which allows the signal to be received in a normal television reception equipment without bothering the display so with additional equipment the data can be retrieved and viewed (Best, column 2, lines 42-54).

Response to Arguments

Applicant's arguments filed 13 September 2005 have been fully considered but they are not persuasive as set forth in the following paragraphs.

As to the applicants arguments directed to the rejection under 35 U.S.C. 101 of claims 1-7, in which the applicant argued that claim 1 is “directed to a physical medium with information embodied thereon” and as such is statutory. The examiner respectfully disagrees, as the information embodied on the medium is non-functional

descriptive material as it is stored on the media without affecting the operational characteristics of the system, thus even with a physical medium it is non-statutory. As stated in the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Annex II; note similar language is in MPEP 2106 IV B 1 (b):

When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored in a computer-readable medium, in a computer, on an electromagnetic carrier signal does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”). Such a result would exalt form over substance. In *re Sarkar*, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978) (“[E]ach invention must be evaluated as claimed; yet semantogenic considerations preclude a determination based solely on words appearing in the claims. In the final analysis under § 101, the claimed invention, as a whole, must be evaluated for what it is.”) (quoted with approval in *Abele*, 684 F.2d at 907, 214 USPQ at 687). See also *In re Johnson*, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978) (“form of the claim is often an exercise in drafting”). Thus, nonstatutory music is not a computer component and it does not become statutory by merely recording it on a compact disk. Protection for this type of work is provided under the copyright law.

When nonfunctional descriptive material is recorded on some computer-readable medium, it is not statutory and should be rejected under 35 U.S.C. § 101. In addition, the examiner should inquire whether there should be a rejection under 35 U.S.C. § 102 or 103. The examiner should determine whether the claimed nonfunctional descriptive material be given patentable weight.

As to claims 2, 3 the means seem to correlate to modules in the specification, however, one of ordinary skill in the art would consider modules as possibly being hardware or software, the examiners finds no clarification in the specification or claims as to whether the modules or the means associated with them as a hardware or software implementation so the breadth of the claimed subject matter is directed may be considered as software per se which is not statutory regardless of whether it is claimed in a means plus function language. Claims 4-7 include at least a geospatial receiver

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that the examiner finds to be inherently implemented in hardware thus these claims along with claim 8 and its dependent claims are considered to be statutory. As to claim 20 it is a data structure per se, and thus also non-statutory.

As to the applicants arguments directed to the rejection under 35 U.S.C. 101 of claims 12-19 and 22 stating that the claims "are directed to a method which is clearly statutory subject matter under 35 U.S.C. 101." Just determining if the claim is directed to a process is not definitive in determining if a claims is statutory as it must be then determined if the invention as claimed provides a "useful, concrete and tangible result." State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. For example, the court in State Street noted that the claimed invention in Alappat "constituted a practical application of an abstract idea, because it produced 'a useful, concrete and tangible result'." The Federal Circuit further ruled that it is of little relevance whether a claim is directed to a machine or process for the purpose of a § 101 analysis. AT&T, 172 F.3d at 1358, 50 USPQ2d at 1451 (see the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Annex II). In this case at least to the level claimed in claims 12-19 and 22 does not provide results that meet all three conditions set forth by State Street as the elements claimed are merely directed to combination of non functional descriptive material to form a nonfunctional descriptive material element.

As to the applicants arguments directed to the rejection under 35 U.S.C. 102 of claim 1 stating that NEMA does not anticipate the claim because “[t]he sentence described by NEMA separates data by commas and therefore **does not concatenate** the data from fields, but **combines the data** keeping intact the separate **textual format of the individual data** from each field. The examiner respectfully disagrees as the sentences are described in the NMEA-0183 General Sentence Format (see section 2 on page 2 of 11 and section 4 starting on page 3 of 11). However, the concatenation is clearly shown NMEA-0180 and NMEA-0182 (see section 2 page 2 of 11 and section 3 starting on page 2) in the “Complex” data format (section 3.2, page 3) this is in a completely different standard then the general sentence format applicant is citing. Particularly with reference to bytes 11-34 with three groups bytes 11-13 are characters 0-9 (numeric) representing bearing to the next waypoint, 14-23 are 12D34.56”N representing present latitude and comprising numeric and decimal portions or the latitude coordinate and 24-34 are 123D45.67” the same for longitude. Which would appear thus:

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| Byte | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | |
| Representative | | | | | | | | | | | | | | | | | | | | | | | | | |
| Character | 3 | 5 | 9 | 1 | 2 | D | 3 | 4 | . | 5 | 6 | “ | N | 1 | 2 | 3 | D | 4 | 5 | . | 6 | 7 | “ | W | |

There is no place for commas between the data elements as each character is a byte and thus they are concatenated. The applicant further argued that “NEMA does not teach or specify the representation of latitude and longitude coordinates outside a computer data format and therefore cannot be used to represent latitude and longitude

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coordinates in a non-computer geographic coordinate representation." However the examiner finds no terms in the claims or definition of terms in the specification that set forth such a limitation. In response to applicant's argument, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

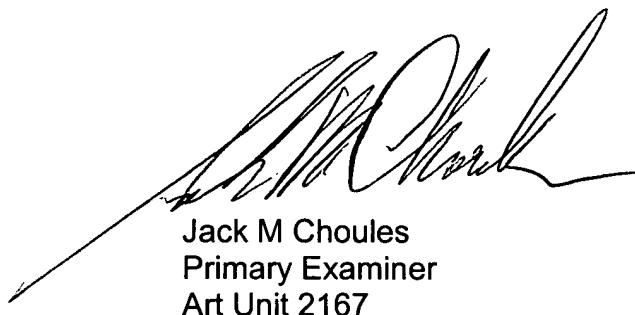
The remaining arguments directed to claims 2-22 are directed to the same limitations as addressed above in reference to claim 1 hereinabove and the same response applies.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack M. Choules whose telephone number is (571) 272-4109. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jean R. Homere can be reached on (571) 272-3780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jack M Choules
Primary Examiner
Art Unit 2167

25 November 2005